TABLES

TABLE 1A

SITE-SPECIFIC REMEDIATION GOALS
VOCs in Soil Vapor
Former Pechiney Cast Plate, Inc. Facility
Vernon, California

Compound	Remediation Goal (micrograms per liter; µg/L)	Explanation
Under Future Use as a Power Plant		
No COCs identified.		
Under Alternative Future Commercial/Industrial Use		
Phase I Area		
Chloroform	6.7	Derived from the Cancer-based RBSL[1] for Indoor Commercial/Industrial Workers (2.0 µg/L). A chloroform concentration of 6.7 µg/L is protective of cumulative indoor commercial/industrial worker exposure to the VOC COCs in the Phase I area, based on a target cancer risk of 10^{-5}.
Tetrachloroethene (PCE)	7.3	Derived from the Cancer-based RBSL for Indoor Commercial/Industrial Workers (2.2 µg/L). A PCE concentration of 7.3 µg/L is protective of cumulative indoor commercial/industrial worker exposure to the VOC COCs in the Phase I area, based on a target cancer risk of 10^{-5}.
Trichloroethene (TCE)	21	Derived from the Cancer-based RBSL for Indoor Commercial/Industrial Workers (6.3 µg/L). A TCE concentration of 21 µg/L is protective of cumulative indoor commercial/industrial worker exposure to the VOC COCs in the Phase I area, based on a target cancer risk of 10^{-5}.
Phase IIIb and Phase IV Areas		
TPH as Stoddard solvent	500	Derived from the Noncancer-based RBSL for Indoor Commercial/Industrial Workers (1500 µg/L). A Stoddard solvent concentration of 500 µg/L is protective of cumulative indoor commercial/industrial worker exposure to the VOC COCs in the Phase IIIb and Phase IV areas, based on a target hazard index of 1.
1,2,4-Trimethylbenzene	12.3	Derived from the Noncancer-based RBSL for Indoor Commercial/Industrial Workers (37 µg/L). A 1,2,4-trimethylbenzene concentration of 12.3 µg/L is protective of cumulative indoor commercial/industrial worker exposure to the VOC COCs in the Phase IIIb and Phase IV areas, based on a target hazard index of 1.
1,3,5-Trimethylbenzene	10.7	Derived from the Noncancer-based RBSL for Indoor Commercial/Industrial Workers (32 µg/L). A 1,3,5-trimethylbenzene concentration of 10.7 µg/L is protective of cumulative indoor commercial/industrial worker exposure to the VOC COCs in the Phase IIIb and Phase IV areas, based on a target hazard index of 1.

Notes:

1. RBSL - Risk-Based Screening Level. Developed based on the methodology described in Appendix C of the Feasibility Study (AMEC, 2009b), RBSLs were used to conduct the screening-level human health risk assessment summarized in Section 5.0.

TABLE 1B

SITE-SPECIFIC REMEDIATION GOALS
PCBs, Metals, and TPH
Former Pechiney Cast Plate, Inc. Facility
Vernon, California

Compound	Remediation Goal (milligrams per kilogram; mg/kg)	Explanation
PCBs[1] in Soil		
Aroclor-1254	2.0	Noncarcinogenic RBSL[2] for construction workers. Also protective of commercial/industrial worker exposure.
Total PCBs (Aroclor-1232, Aroclor-1248, Aroclor-1254, and Aroclor-1260) *For soil that may be left exposed at the surface*	5.3	Derived from the carcinogenic RBSL for outdoor commercial/industrial workers (0.53 mg/kg). A total PCB concentration of 5.3 mg/kg is protective of cumulative commercial/industrial worker exposure to PCBs, based on a target cancer risk of 10^{-5}. Also protective of cumulative construction worker exposure to PCBs.
Total PCBs (Aroclor-1232, Aroclor-1248, Aroclor-1254, and Aroclor-1260) *For soil left below pavement or other ground cover that only construction workers may come into contact with during construction*	35	Derived from the carcinogenic RBSL for construction workers (3.5 mg/kg). A total PCB concentration of 35 mg/kg is protective of cumulative construction worker exposure to PCBs, based on a target cancer risk of 10^{-5}.
PCBs in Concrete		
Total PCBs (Aroclor-1232, Aroclor-1248, Aroclor-1254, and Aroclor-1260)	5.3	Derived from the carcinogenic RBSL for outdoor commercial/industrial workers (0.53 mg/kg). A total PCB concentration of 5.3 mg/kg is protective of cumulative commercial/industrial worker exposure to PCBs, based on a target cancer risk of 10^{-5}. Also protective of cumulative construction worker exposure to PCBs. Applying this remediation goal ensures that waste criteria for concrete containing PCBs is also met [i.e., less than 50 mg/kg, as defined in 40 CFR Section 761.61(a)(4)(i)(A)].
Metals in Soil		
Arsenic	10	Site-Specific Background Concentration in Soil, established as described in Appendix B.
TPH[3] in Soil		
c5-c10 hydrocarbons, c6-c10 hydrocarbons, c7-c12 hydrocarbons, and Stoddard solvent	500	Screening Level for the Protection of Groundwater for TPH gasoline range (c4-c12) from the Los Angeles RWQCB Guidebook.[4]
c10-c20 hydrocarbons and c10-c28 hydrocarbons	1,000	Screening Level for the Protection of Groundwater for TPH diesel range (c13-c22) from the Los Angeles RWQCB Guidebook.[4]
c21-c28 hydrocarbons	10,000	Screening Level for the Protection of Groundwater for TPH as residual fuel (c23-c32) from the Los Angeles RWQCB Guidebook[4].

Notes:

1. PCBs - Polychlorinated Biphenyls.
2. RBSL - Risk-Based Screening Level. Developed based on the methodology described in Appendix C of the Feasibility Study (AMEC, 2009b). RBSLs were used to conduct the screening-level human health risk assessment summarized in Section 5.0.
3. TPH - Total Petroleum Hydrocarbons
4. Los Angeles RWQCB Interim Site Assessment and Cleanup Guidebook (RWQCB Guidebook, May 1996, updated May 2004), for petroleum hydrocarbons and aromatic hydrocarbons (benzene, toluene, ethylbenzene, and total xylenes (BTEX) compounds) in soil. The selected screening levels were taken from Table 4-1 assuming distance above groundwater is 20-150 feet.

TABLE 1C

SITE-SPECIFIC REMEDIATION GOALS[1]
VOCs in Soil
Former Pechiney Cast Plate, Inc. Facility
Vernon, California

Depth (feet)	Concentration in micrograms per kilogram (µg/kg)						
	Trichloroethene	Tetrachloroethene	Benzene	Toluene	Ethylbenzene	Xylenes	1,2-Dichloroethane
0	152	764	15	9,058	15,349	97,239	1.8
10	145	732	15	8,670	14,690	93,069	1.7
20	138	694	14	8,227	13,940	88,314	1.6
30	130	655	13	7,769	13,164	83,398	1.5
40	122	615	12	7,292	12,356	78,278	1.4
50	114	572	11	6,777	11,484	72,756	1.3
60	80	404	8	4,790	8,116	51,415	0.9
70	60	301	6	3,565	6,040	38,267	0.7
80	52	260	5	3,081	5,220	33,071	0.6
90	36	183	4	2,164	3,667	23,230	0.5
100	27	138	3	1,634	2,768	17,538	0.5
110	12	59	1	702	1,190	7,536	0.5
120	9	44	1	530	900	5,694	0.5
130	5	19	1	229	391	2,466	0.5
140	5	10	1	150	300	1,750	0.5
149	5	5	1	150	300	1,750	0.5

Notes:

1. Calculations based on Appendix A, "Attenuation Factor Method For VOCs" of "Remediation Guidance For Petroleum and VOC Impacted Sites" in Interim Site Assessment & Cleanup Guidebook published by the California Regional Water Quality Control Board, Los Angeles Region.

TABLE 2

SUMMARY OF ALTERNATIVES AND EVALUATION CRITERIA

Former Pechiney Cast Plate, Inc. Facility
3200 Fruitland Avenue
Vernon, California

Evaluation Criteria	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Overall Protection of Human Health and Environment	○	●	●	⊖
Compliance with State and Federal Requirements (ARARs)	○	●	●	●
Long-term Effectiveness and Permanence	○	●	●	●
Reduction of Toxicity, Mobility or Volume through Treatment	○	●	●	⊖
Total Cost	$0	$28,700,000	$3,500,000	$12,400,000
Short-term Effectiveness	○	●	●	●
Implementability	●	●	●	⊖
Regulatory Agency Acceptance	○			
Community Acceptance	○			

● = Fully meets criterion

⊖ = Partially meets criterion

○ = Does not meet criterion

Alternative 1: No Action

Alternative 2: Excavation and Disposal of COC-Impacted Soil and Demolition and Disposal of PCB-Impacted Concrete

Alternative 3: Excavation and Disposal of Shallow COC-Impacted Soil, SVE for Shallow and Deep VOC-Impacted Soil, SVE and Bioventing for Shallow and Deep Stoddard Solvent-Impacted Soil, and Demolition and Disposal of PCB-Impacted Concrete

Alternative 4: In Situ Stabilization of Shallow PCB/Metals-Impacted Soil and Deep Stoddard Solvent-Impacted Soil, SVE for Shallow and Deep VOC-Impacted Soil, and Demolition and Disposal of PCB-Impacted Concrete